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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/705,843

11/13/2003

Alexander Krymski

M4065.0960/P960

4875

24998

7590

02/15/2006

DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP

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Washington, DC 20037

EXAMINER

LUU, THANH X

ART UNIT

PAPER NUMBER

2878

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

8

Office Action Summary

Application No.

10/705,843

Applicant(s)

KRYMSKI, ALEXANDER

Examiner

Thanh X. Luu

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6, 10, 13-21, 25-29, 31 and 32 is/are rejected.
- 7) ☒ Claim(s) 3-5, 7-9, 11, 12, 22-24, 30 and 33-36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to amendments and remarks filed January 19, 2006. Claims 1-36 are currently pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 6, 10, 13, 14, 16, 18, 20, 21, 25-29, 31, and 32, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Pain et al. (WO 99/482281).

Regarding claims 1, 2, 6, 10, 13, 14, 16, 18, 20, 21, 25-29, 31 and 32, Pain et al. disclose (see Figs. 1, 2 and page 6, lines 17-30) an image sensor readout circuit and method, comprising: a column line for receiving a plurality of analog pixel (signal) and analog reset (reset) signals; and a binning circuit (CIS, CIR, various switches) coupled to the column line, which combines a predetermined plurality of analog pixel signals from a plurality of pixels and outputs them on a first output line, and combines a predetermined plurality of analog reset signals from a plurality of pixels and outputs them on a second output line. Pain et al. further disclose first and second sample circuits (CIS, CIR) for storing the plurality of signals and first and second switches (respective CS switches) for combining or interpolating as claimed. Furthermore, since correlated double sampling takes place the signals (signal and reset) are subtracted. In addition, Pain et al. disclose (see Fig. 2) column switches (one CB for each respective

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column readout circuit) and an op-amp (A or AO) as claimed. Pain et al. also disclose (see Fig. 2) setting a reference voltage (V+) on first sides of respective capacitive elements (CLS, CLR) and coupling the signal and reset values to second sides of the capacitive elements.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pain et al.

Regarding claim 19, Pain et al. disclose the claimed invention as set forth above. Pain et al. do not specifically disclose calculating color separation. However, calculating color separation is well known. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to calculate color separation as claimed in the method of Pain et al. as desired for improved color processing.

5. Claims 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pain et al. in view of Okamoto (U.S. Patent Application Publication 2003/0193580).

Regarding claims 15 and 17, Pain et al. disclose the claimed invention as set forth above. Pain et al. do not specifically disclose sampling identical colors or taking into account a Bayer pattern. Okamoto teaches (see Fig. 4) sampling identical colors that take into account a Bayer pattern. Thus, it would have been obvious to a person of

ordinary skill in the art at the time the invention was made to sample identical colors and take into account a Bayer pattern as claimed in the method of Pain et al. in view of Okamoto improve reduced resolution color detection and imaging as taught.

Allowable Subject Matter

6. Claims 3-5, 7-9, 11, 12, 22-24, 30 and 33-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments filed January 19, 2006 have been fully considered but they are not persuasive.

With regard to Pain et al., Applicant asserts that the prior art does not disclose combining or sampling or storing signals from a plurality of pixels because only one CIS and one CIR is used. Examiner disagrees. Pain et al. clearly state (see page 6, lines 20-25) "After three cycles, capacitors CIS and CIR hold the accumulated result from the three rows of the kernel." It is unclear how the accumulation of three rows of pixel signals is not "from a plurality of pixels."

Thus, as set forth above, this rejection is proper.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is 571-272-2441. The examiner can normally be reached on M-F 6:00AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, consisting of stylized, overlapping loops and a long horizontal stroke extending to the right.

Thanh X Luu
Primary Examiner
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